

## ABSTRACT

Immunization of human antibody-producing transgenic mice, which have been created using genetic engineering techniques, with AILIM molecule as an antigen  
5 resulted in various human monoclonal antibodies capable of binding to AILIM and capable of controlling a variety of biological reactions (for example, cell proliferation, cytokine production, immune cytotoxicity, cell death, induction of ADCC, etc.) associated with AILIM-mediated costimulatory signal (secondary signal) transduction.  
Furthermore, it has been revealed that the human monoclonal antibody is effective to  
10 treat and prevent various diseases associated with AILIM-mediated costimulatory signal transduction, being capable of inhibiting the onset and/or advancement of the diseases.